

29601

S/120/61/000/004/010/034
E202/E592

26.235P

AUTHORS: Martinson, Ye. N. and Myznikov, K. N.

TITLE: Production of very high vacuum by sorption of residual gases on vacuum deposited films

PERIODICAL: Pribery i tekhnika eksperimenta, no. 4, 1961, 71-73

TEXT: The purpose of this work was to extend an earlier method (Ref. 1: PTE, 1960, No. 5, 109) in which high vacuum was produced in glass containers to stainless steel containers. The arrangement of the apparatus is shown in Fig. 1, where 1 - stainless steel cylinder; 2 - cooling jacket; 3 and 4 - flanges with Al or Cu gaskets supporting the Alpert ionisation gauge (3) and four metallic powder evaporators made of tungsten coils supported on Mo bushings (4a); 5 - glass to steel joint; 6 - dry isolating valve operated magnetically; 7, 8 and 11 - liquid nitrogen cooled vapour traps; 9 - two ionisation gauges [Abstractor's note: probably "Pirani" type]; 10 - dry isolating valve; 12 - diffusion pump (mercury or oil vapour type); 13 - liquid nitrogen vapour trap protecting the diffusion pump; 14 - cut-off valve for the screw type pump; 15 and 15a - ionisation gauges; 16 - small container for the preliminary evacuation;

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17 - screw type mechanical pump and motor. Broken line rectangle shows the extent of the heating mantle used for degassing. Thus the apparatus consisted of two parts: in the first one the metallic powders were evaporated in a cylinder using the vacuum deposition technique - while the second part was producing the preliminary vacuum for the deposition. The ultimate, very hard vacuum was attained by sorption of the residual gases on the deposited films. Prior to film deposition the system was degassed. The final degassing started when the internal pressure dropped to 2×10^{-5} mm Hg and was carried out for a period of 80-100 hours at a temperature of 400°C , derived from a heating mantle. Within the last few hours of degassing the Alpert gauge was switched on and its grid degassed. On subsequent cooling, pressures of the order of $2 - 3 \times 10^{-7}$ mm Hg were attained. Next, the metallic powders were partially evaporated in turn from each evaporator, keeping the valve 6 opened. The deposition was effected by passing a current of 22 - 33 amps dissipating approximately 140-330 watts. Deposition from each evaporator took 2 min. Valve 6 was turned off and the fall of pressure measured until the limiting

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pressure was reached, when the valve was opened again connecting the diffusion pump. This cycle was repeated four times by which time all the 150 mg of the introduced metal were evaporated. Best results were obtained using a mercury diffusion pump and evaporating thorium, viz. 5×10^{-10} mm Hg titanium, zirconium and barium powders gave 8.8×10^{-10} ; 1.8×10^{-9} and 2.1×10^{-9} mm Hg, respectively. The volume of the cylinder was 2.3 litres and the internal area approximately 1300 cm². The degree of deposition corresponded to 90% of the total area, giving a final thickness of the deposit of 0.4 - 0.5 mg/cm². There are 3 figures and 5 references: 2 Soviet and 3 non-Soviet. The English-language references read as follows: Ref.4: Tetsuya Arizumi, Kotani, J. Phys. Soc., 1952,7; Ref.5: W.J. Kroll, A. W. Schlichton, Electrochem.Soc., 1948, 93, 247.

SUBMITTED: May 31, 1960

Card 3/4

L 35526-65 EWT(1)/EPA(s)-2/EPF(n)-2/EPR/T-2/EPA(b)-2 Ps-4

ACCESSION NR: AP5008184

S/0286/65/000/005/0060/0060

AUTHORS: Martinson, Ye. M.; Plachev, B. I.; Myshikov, A. N.; Stepanov, V. A.

TITLE: Working liquids for vacuum pumps, Class 27, No. 168240

SOURCE: Izvestiya i tovarnykh znakov, no. 5, 1965, 40

TOPIC TAGS: vacuum pump, coolant, hydrocarbon, cryohydrate

ABSTRACT: This Author Certificate presents the application of cryohydrates as working liquids for vacuum pumps (such as mechanical or steam-jet pumps) for the purpose of providing hydrocarbon-free evacuation.

ASSOCIATION: none

SUBMITTED: 13Nov63

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 1A

ACC NR: 413/66/1000/0000

COLLECTOR: UR/413/66/1000/0000

INVENTOR: Martinson, Ye. N.; Myznikov, K. N.; Nesterenko, A. G.; Leyn, P. Ya.

ORG: None

TITLE: A sorption vacuum pump. Class 27, No. 183878

SOURCE: Izobreteniya, promyshlennyye obrabotki, tovarnyye znaki, No. 16, 1966

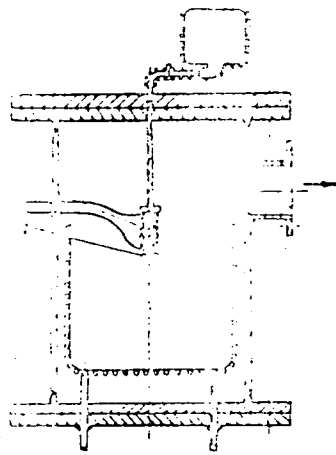
TOPIC TAGS: vacuum pump, sorption, titanium, stainless steel, alkali metal

ABSTRACT: This Author's Certificate introduces: 1. A sorption vacuum pump which contains a vessel with alkali metal used as a getter, and a means for cleaning the metal. The pump is simplified and purification of the alkali metal from volatile impurities is facilitated while simultaneously increasing the rate of evacuation of the pump by using a metal diaphragm as the means for purification of the alkali metal. This diaphragm covers the vessel so that only the alkali metal can escape. 2. A modification of this pump in which the diaphragm is made from stainless steel. 3. A modification of this pump in which the diaphragm is made from titanium.

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UDC: 533.562

ACC NR: AP6029045



1—vessel with alkali metal; 2—diaphragm

SUB CODE: 13, 11/ SUBM DATE: 11May65

Card 2/2

ISSINSKIY, I.B.; MYZNIKOV, K.P.

[Measuring the intensity of the internal beam in a proton-synchrotron by means of the reaction $C^{12}(p, pn) C^{11}$] Izmerenie intensivnosti vnutrennego puchka sinkhrofazotrona s pomoshch'iu reaktsii $C^{12}(p, pn) C^{11}$. Dubna, Ob"edinennyi in-t iadernykh issledovaniy, 1961. 10 p. (MIRA 14:10)
(Synchrotron) (Nuclear reactions)

KUZNETSOV, A.B.; MYZNIKOV, K.P.

[Characteristics of a beam of protons accelerated in a proton-synchrotron up to an energy of 10Bev.] Issledovanie kharakteristik puchka protonov, uskorennykh v sinkhrofazotrone na 10 Bev. Dubna, Ob"edinennyi in-t iadernykh issledovani, 1961. 13 p.
(MIRA 14:10)

(Synchrotron)

(Protons)

KAZANSKIY, G.S.; MIKHAYLOV, A.I.; MYZNIKOV, K.P.; TSARENKOV, A.P.

[Methods for changing the duration of the interaction between
the beam and the target in a synchrophasotron at 10 Bev] Metody
izmeneniia dlitel'nosti vzaimodeistviia puchka s mishen'iu v
sinkhrofazotrone na 10 Bev. Dubna, Ob"edinennyi in-t iadernykh
issl., 1961. 17 p. (MIRA 15:1)

(Synchrotron)

(Protons)

S/126/02/000/002/001/047
2039/0420

AUTHORS: Issinskiy, I.E., Nyznikov, K.P.

TITLE: Measurement of the intensity of the internal beam of a synchrotron with the aid of the $C^{12}(p, pn)C^{11}$ reaction

PERIODICAL: Priroda i tekhnika eksperimenta, no.2, 1962, 16-19

TEXT: The formation of radioactive C^{11} from C^{12} by the action of high energy protons provides a convenient means of measuring the intensity of the proton beam in a synchrotron at 10 GeV. The radioactive isotope C^{11} emits positrons with a maximum energy of 0.97 MeV and has a half life of 20.4 min. The threshold of the reaction is near 20 MeV and this allows such beam particles of low energy to be excluded. Values of the cross-section of the $C^{12}(p, pn)C^{11}$ reaction are well known for energies from the threshold up to 6 GeV. In order to make a measurement, a plastic scintillator on a polystyrene base is placed inside the accelerator slightly to one side of the proton beam. When the beam reaches the desired intensity, the acceleration is stopped and the beam directed onto the plastic target. If the intensity

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1/110/11/000/002/001/047
8039/2420

is small, the procedure is repeated a number of times. The activated sample is then removed from the vacuum vessel of the accelerator and the decay curve of the activity induced in the plastic medium by means of a scintillation counters. Hence the number of particles incident on the plastic target can be estimated. A circuit diagram for the photomultiplier used is given. The method was used in 1958 and 1959 for the measurement of 10 Gev protons at intensities of 10^5 to 10^6 protons/imp and later for intensities of 10^5 to 10^6 particles /imp. In the latter case, measurements could be made from one impulse. There are 3 figures.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

SUBMITTED: August 17, 1961

Card 2/2

S/120/62/000/005/002/036
E032/E314

AUTHORS: Kazanskiy, G.S., Mikhaylov, A.I., Myznikov, K.P.
and Tsarenkov, A.P.

TITLE: Methods of varying the time of interaction of the
beam with the target in the 10 GeV proton synchrotron

PERIODICAL: Pribery i tekhnika eksperimenta, no. 5, 1962,
19 - 24

TEXT: Experiments designed for the proton synchrotron at
the Joint Institute for Nuclear Studies require the availability
of secondary-particle pulses of different lengths. Secondary
particles are produced by bombarding an internal target and the
time of interaction of the beam with the target determines the
length of the secondary-particle pulse. The authors give in
this paper a brief summary of the various methods used to alter
the beam-target time of interaction. The methods for increasing
the time of interaction are as follows: 1) resonance build-up
of oscillations in which the resonance is excited artificially
by modulating the accelerating voltage in such a way that the
particles leave the phase-stability region. Particles leaving
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Methods of varying

S/120/62/000/005/002/036

E032/E314

the acceleration process are deflected by the variable magnetic field onto the target and the time of interaction with the target is adjusted by adjusting the modulation amplitude. In this way, the length of the secondary-particle pulses can be increased to 250 ms. 2) Slow reduction in the amplitude of the accelerating voltage. This method is also based on the removal of the accelerated particles from synchronism by reducing the region of phase stability. The method has been discussed theoretically by V.I. Kotov and L.L. Sabsovich (PTE, 1957, no. 6, 19). However, an empirical approach was found to be more suitable.

3) Slow variation in the frequency of the accelerating voltage. A change in this frequency produces a change in the radius of the equilibrium orbit. This effect has been considered theoretically by M.S. Rabinovich (Tr. FIAN SSSR, 1958, 10, 23). The rate at which the beam is displaced onto the target is proportional to the rate of change in the frequency. Linear variation in the frequency was found to be inadequate and a special feedback system which controls the relation between the frequency and the magnetic field was developed, using the radial beam-position indicator reported by F.A. Vodop'yanov et al

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(Proceedings of the International Conference on High Energy Accelerators and Instrumentation, CERN, Geneva, 1959).

The methods used to reduce the beam-target interaction time were as follows: a) reduction in the radial dimensions of the beam during the acceleration process. In this method the width of the beam was reduced by slowly varying the frequency of the accelerating voltage; b) instantaneous change in the phase of the accelerating voltage. Here, the time of interaction was reduced by increasing the rate of displacement of instantaneous equilibrium orbits; c) rapid variation in the frequency of the accelerating voltage. This method has the considerable advantage that it gives rise to very little change in the output intensity (low particle losses). With a frequency variation of 1.8 Mc/s/s, the time of interaction can be reduced to 2 μ s. This corresponds to the interception of 70% of the original beam by the target. There are 8 figures.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute for Nuclear Studies)

SUBMITTED: December 9, 1961

Card 3/3

BR

S/089/62/012/005/001/014
B102/B104

24 6 736
AUTHORS: Kuznetsov, A. B., Myznikov, K. P.

TITLE: Investigation of the beam characteristics in a 10-Bev proton synchrotron

PERIODICAL: Atomnaya energiya, v. 12, no. 5, 1962, 373-377

TEXT: Methods of investigating synchrotron beam characteristics are described and the results are discussed in brief. 1) Filling of the stability phase region at the end of the acceleration, and the energy spread: The method is based on the relation between relative spread of the phase oscillations and the amplitude of the radial phase oscillations. The spread of the phases is determined from the duration of the signal from induction electrodes (P. A. Vodop'yanov et al. Proceedings CERN, 1959, p. 470). The phase spread of a proton cluster at the end of

accelerations was $\epsilon = 0.41$; $\epsilon = \frac{\varphi_2 - \varphi_1}{2\pi}$. φ_1 and φ_2 are the extreme phases.

The maximum amplitude of radial phase oscillations was 2.1 cm. The radial

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Investigation of the beam ...

S/089/62/012/005/001/014
B102/B104

width of the stability region was 2.8 cm and the degree of filling of the separatrix at the end of acceleration was 0.75. The maximum energy spread was determined from the maximum amplitude of the radial-phase oscillations and was ± 2.8 Mev. 2) Particle distribution with respect to the amplitudes of the free radial oscillations $\bar{I}(a)$: This characteristic was determined from an analysis of the pulse from the inner target hit by the accelerated beam deviated by an increasing magnetic field after switching off the accelerating voltage, $\bar{I}(a)$ determined from the current pulse oscillogram, is shown in Fig. 6; it is little affected by the particle distribution with respect to the instantaneous orbits. 3) Particle distribution with respect to the amplitudes of the free vertical oscillations $\bar{I}(z)$: This characteristic was measured with a rotating target described by I. B. Issinskiy and K. P. Myznikov (Preprint OIYaI, R-484, Dubna 1960). $\bar{I}(z)$, shown in Fig. 8, was determined when taking account for the dependence of the number of accelerated particles of a given energy on the position of the target. There are 8 figures.

Card 2/3

L 15703-63

EWT(1)/EWT(m)/EWS/ES(w)-2

AFPC/ASD/ESD-3/AFWL/SSD

Pub-4

LP(C)

ACCESSION NR: AP3004880

S/0120/63/000/004/0019/0021

72
66

AUTHOR: Myznikov, K. P.; Yalovoy, I. N.

TITLE: Beam extraction in a proton synchrotron by generating an azimuthal asymmetry of magnetic field

SOURCE: Priburye tekhnika eksperimenta, no. 4, 1963, 19-21

TOPIC TAGS: beam extraction, proton synchrotron

ABSTRACT: A description is presented of a beam extraction system that generates the first harmonic of azimuthal asymmetry of magnetic field; the system is used in the proton synchrotron at the United Nuclear Research Institute. The disturbing field is built, at the end of the acceleration cycle, by special windings on all four sectors of the ring magnet. The current pulse in the winding is taken from a bank of capacitors which discharges at an appropriate moment of the acceleration cycle. The entire beam, or a part thereof, can be extracted in

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ACCESSION NR: AP3004880

6

10-40 microsec. The beam hits the target during the rising part of the current pulse, the maximum pulse-current value not exceeding 200 amp. General possibilities of using this method in proton synchrotrons are indicated. "The authors are using this opportunity to express their deep gratitude to L. P. Zinoviyev and L. N. Belyayev for useful discussions, to Ye. V. Zhil'tsov and M. I. Nikitayev for their help in carrying out the experiments on the proton synchrotron, and to A. I. Kryukov who took part in building and aligning the equipment." Orig. art. has: 5 figures and 1 formula.

ASSOCIATION: Ob'yedinenny'y institut yaderny*kh issledovaniy (United Nuclear Research Institute)

SUBMITTED: 29Aug62

DATE ACQ: 28Aug63

ENCL: 00

SUB CODE: NS

NO REF SOV: 003

OTHER: 004

Card 2/2

L 15704-63 EMT(m)/BDS/ES(w)-2 AFFTC/ASD/ESD-3/AFM/SSD Feb-4
LJP(C)
ACCESSION NR: AP3004881 S/0120/63/000/24/0022/0023 66
AUTHOR: Zinov'yev, L. P.; Kotov, V. I.; Myznikov, K. P. 65
TITLE: Measuring magnetic-field index in a weak-focusing proton synchrotron by
the accelerated-particle beam 19
SOURCE: Priburye tekhnika eksperimenta, no. 4, 1963, 22-23
TOPIC TAGS: weak-focusing proton synchrotron, proton synchrotron
ABSTRACT: The method of measuring magnetic-field index described by C. A. Ramm, et al. (J. Scient. Instrum., 1956, 33, 102) was modernized in such a way that the index could be measured by the beam with higher accuracy at any flux density. During the acceleration process, the beam was shifted by varying the accelerating-voltage frequency to the region where the index was to be measured. The arrangement of measuring devices in determining the index on the proton synchrotron of the United Nuclear Research Institute at 10.10^9 ev is shown.
ASSOCIATION: United Nuclear Research Institute
Card 1/2/

2776-66 ENT(m)/E:IA(m)-2 JJP(c) GS
ACCESSION NR: AT5007947

S/0000/64/000/000/0693/0697

AUTHOR: Zinov'yev, L. P.; Issinskiy, I. B.; Kotov, V. I.; Kulakova, Ye. M.;
Pavlov, M. I.; Myznikov, K. P.

TITLE: The utilization of parametric resonance in the 10-Bev synchrophasotron for
particle output

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.
Trudy. Moscow, Atomizdat, 1964, 693-697

TOPIC TAGS: high energy accelerator, electron paramagnetic resonance, focusing
accelerator

ABSTRACT: Accelerated particles with pulse length of less than 100 usec are of
great importance in current physical experiments. Great interest is shown in the
possibility of applying the parametric (half-integral) resonance. Such a possibi-
lity has been discussed in the literature especially in application to conditions
of weak-focusing and strong-focusing accelerators. Utilization of the resonance
at $\nu_x = 1/2$ for the rapid hurling of the accelerated beam against the target in a
small 70-Mev synchrotron permitted one to obtain good results. The present report
discusses the results of investigations conducted on the synchrophasotron at the

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L 3776-66

ACCESSION NR: AT5007947

Joint Institute of Nuclear Research to clarify the expediency of artificially exciting the resonance $\nu_x = 1/2$ for hurling the accelerated particles against the target and for extracting the proton beam from the accelerator's chamber. The resonance conditions were created by way of variation in an identical manner of the field index n in two neighboring quadrants such that the mean value of n in the accelerator corresponded to the condition of resonance. The resonance force here is determined by the magnitude of the first harmonic of the excitation (A. A. Kolomenskiy, A. M. Lebedev, *Teoriya tsiklicheskikh unkoritel'nykh* (Theory of Cyclical Accelerators), Moscow, Fizmatgiz, 1967). Under real conditions the exciting field was created with the help of windings arranged inside the accelerator's vacuum chamber. The inductance of the windings arranged to about 3 mega-henries, which limited the rate of growth of the excitation. Numerical calculations carried out on an electronic computer on the exact equations of motion of the particles in the magnetic field showed that, for obtaining the resonance conditions, it is necessary to create the configuration of the magnetic field such that the index n in the excited quadrants reach values close to 0.9 for a duration of 300 microseconds (about 400 revolutions). The following topics are discussed: the dependence of the field index N upon the radius for currents of 340 amperes and none in the ex-

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ACCESSION NR: AT50079-7

citer winding; radial hurling of particles on the target 10 cm and 20 cm from the target; dependence of the duration of beam collision with the target upon the radial position of the target relative to the orbit for various excitations; dependence of the depth of hurling upon excitation and radial position of the target; the angle of flight of the particles into the gap of the deflector as a function of the moment of flight. "The authors thank Academician V. I. Veksler for his helpful discussions; L. A. Smirnova and M. N. Govorun for their help in the numerical computations; V. M. Buldakovskiy, A. I. Kryukov, Yu. F. Kuzagin, V. S. Mironov, M. I. Nikitayev et al., for their participation in developing and adjusting the emulsion experiments." Orig. art. has: 8 figures.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26 May 64

ENCL: 00

SW CODE: NP

NO REF SOV: 004

OTHER: 003

Card 3/3

L 47084-55 EWT(m)/EPA(w)-2/EWA(m)-2 Pt-7/Pab-10 IJP(c)

ACCESSION NR: AP5007020

S/0120/65/000/001/0033/0038

AUTHOR: Zlakov, L. P.; Iasinskiy, I. M.; Kotov, V. I.; Kulakova, Ya. M.; Mysnikov, K. P.; Pavlov, N. I.

TITLE: Fast extraction of the proton-synchrotron beam to the target

SOURCE: Pribery i tekhnika eksperimenta, no. 1, 1965, 33-38

TOPIC TAGS: particle beam, proton synchrotron, beam extraction

ABSTRACT: Fast extraction of the beam and sending it to a target located near the maximum-deflection azimuth was achieved by creating parametric-resonance conditions in the weak-focusing 10-Gev proton-synchrotron. The resonance conditions were ensured by windings placed inside the vacuum chamber. A bank of capacitors was discharged at 10 kv into the winding; by the end of the acceleration cycle, the (thyatron-switched) winding current rose sine-wise to a maximum and then (also thyatron-switched) fell-off exponentially. The system ensured a

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L 47084-65

ACCESSION NR: AP5007020

beam-extraction time as low as 30 psec. "The authors wish to thank V. I. Vekaler for a useful discussion; L. A. Smirnova and N. N. Govorun for their great help in calculations; and Y. N. Buldakovsky, A. I. Kryukov, Yu. F. Kusagin, V. S. Mironov, M. I. Nikitayev, and others who took part in the development and alignment of the equipment." Orig. art. has: 6 figures and 1 formula.

ASSOCIATION: Ob'yedinenyy Institut yadernykh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 29Jan64

ENCL: 00

SUB CODE: NP

NO REF SOV: 007

OTHER: 005

Card 2/2

~~L 1135-66~~

ACCESSION NR: AP5016388

UR/0120,65/000/003/0131/0134
537.54

AUTHOR: Issinskiy, I. B.; Mysnikov, K. P.

TITLE: High-voltage discharger with a nanosecond accuracy of circuit closing

SOURCE: Pribery i tekhnika eksperimenta, no. 3, 1965, 131-134

TOPIC TAGS: discharger, discharge switch

ABSTRACT: Developed after K. Wilkinson (J.I.E.E., 1946, 93, part IIIA, no. 5, 1090), an air-gap discharge switch is described which can turn on currents of $10^3 - 6 \times 10^4$ amp at 40-150 kv with a time error of 5 nsec, with a control prefire pulse of 5 kv. The firing accuracy is ensured by a needle-inside-the-cylinder design of the prefire control device. Tests have shown that the firing accuracy depends on the discharge-switch configuration, main-circuit voltage, height and power of the prefire pulse, etc. Experimental characteristics are supplied which show the applied-voltages stability required to ensure the switching accuracy.

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L 1135-66

ACCESSION NR: AP5016388

"The authors wish to thank O. A. Kolpakov and V. N. Buldakovski for their part in the preliminary work, and also V. A. Shurkhovetskiy for aligning the circuit and measuring the characteristics." Orig. art. has: 6 figures

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 08Apr64

ENCL: 00

SUB CODE: EL

NO REF SOV: 000

OTHER: 002

mc
Card 2/2

L 23126-66 EWT(a)/EWP(1) IJP(c)

ACC NR: AP6001565

SOURCE CODE: UR/0120/65/000/006/0023/0026

AUTHOR: Issinskiy, I. B.; Kazanskiy, G. S.; Mikhaylov, A. I.; Myznikov, K. P.;
Omel'chenko, B. D.; Tsarenkov, A. P.

ORG: Joint Nuclear Research Institute (Ob'yedinennyy institut yadernykh issledovaniy)

TITLE: Programing the operation of the OIYaI-proton synchrotron for physical experiments

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 23-26

TOPIC TAGS: synchrotron, proton beam, computer programming

ABSTRACT: Two types of proton-synchrotron operation are usually required for physical experiments at OIYaI: (1) Short (50—500 μ sec) bursts of particles for bubble-chambers and (2) longer (up to 200 msec) pulses for counters. A programing system was developed which consists of a 7-channel operation-sequence unit, a command unit, a target-control unit, field sensors, a supply-control unit, and function manipulators. Several methods are envisaged for slow and fast application of the beam to various targets. Only block diagrams and short explanations are presented. Orig. art. has: 4 figures.

SUB CODE: 18, 09 / SUBM DATE: 20Oct64 / ORIG REF: 006

Card 1/1

UDC: 621.384.66

ZINOV'YEV, L.P.; ISSINSKIY, I.B.; KOTOV, V.I.; KULAKOVA, Ye.M.; MYENIKOV, K.F.;
PAVLOV, N.I.

Fast extraction of a proton-synchrotron beam onto the target at the
i tekhn. eksp. 10 no.1:33-38 Ja-F '65. (MIRA 1965)

1. Ob'yedinennyi institut yadernykh issledovaniy.

ACC NR: AP/000140

(N)

SOURCE CODE: UR/0177/66/000/011/0019/0080

AUTHOR: Myznikov, L. L. (Captain; Medical service)

ORG: none

TITLE: The use of the DP-2 artificial respiration device for pressure therapy

SOURCE: Voenno-meditsinskiy zhurnal, no. 11, 1966, 79-80

TOPIC TAGS: naval medicine, decompression sickness, clinical medicine, artificial respiration, pressure therapy, *hospital equipment*

ABSTRACT: Pressure therapy, employed primarily for disorders associated with diving, is now proposed for various clinical uses. Fig. 1 shows a basic diagram of the DP-2, a portable assembly used for pressure therapy. An 18—20% helium-oxygen mixture is recommended by the authors as a therapeutic respiratory medium. A pressure of up to ten atm can be accommodated effectively. When necessary, the DP-2 can be used as an oxygen inhaler by closing the atmospheric air inlet and attaching the oxygen tank. Such therapy facilitates reflex stimulation of the respiratory center. The use of the DP-2 is indicated for respiratory center paralysis caused by embolisms (decompression sickness, pulmonary pressure injury, postsurgical aeroembolism, etc.), and acute hypoxia. Few alterations in the instrumentation of the DP-2 are necessary for clinical practice. Orig. art. has: 1 figure. [WA-67]

Cord 1/2

UDC: 615.816-78+615.836

ACC NR: AP7000140

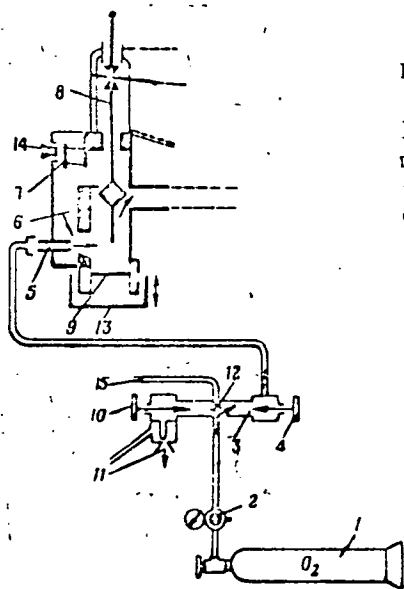


Fig. 1. Diagram of the DP-2

1 - Oxygen tank; 2 - reducer with high-pressure manometer and safety valve; 3 - oxygen feed regulator; 4 - regulator valve; 5 - injector; 6 - chamber; 7 - valve preventing atmospheric leakage; 8 - inhale-exhale regulator valve; 9 - safety valve; 10 - aspirator vent; 11 - ejector; 12 - sleeve for hose attachment; 13 - inhale-exhale regulator nut; 14 - leak valve stopper; 15 - hose carrying gas mixture.

SUB CODE: 06/ SUBM DATE: none/

Card 2/2

TUSEVICH, V.A., inzh.; BARYSHNIKOV, A.P., inzh.; KOZHEVNIKOV, G.A., inzh.;
MYZNIKOV, N.F., inzh.

Use of an axial flue gas pump with reversible blades in a boiler
operating on natural gas. Elek. sta. 33 no.8:13-16 Ag '62.
(MIRA 15:3)

(Boilers--Equipment and supplies)

MYZNIKOV, N.M.

Sensitivity of the olfactory analyzer in work dogs and methods
for increasing it. [with summary in English]. Zhur.vys.nerv.
delat. 8 no.5:744-750 S-O '58 (MIRA 12:1)

1. Kiyevskiy veterinarnyy institut.

(DOGS,

smell-sensitivity in work dogs, eff. of various drugs
(Rus))

(SMELL,

same (Rus))

MYZNIKOV, N. M., Cand Vet Sci -- (diss) "Sensitivity of the olfactory analyzer in working dogs and methods of its increase." Yerevan, 1960. 19 pp; (Committee of the Council of Ministers Armenian SSR for Higher and Secondary Specialist Education, Yerevan Zooveterinary Inst); 100 copies; price not given; (KL, 27-60, 150)

MYZNIKOV, V. F. and D'YAKOV, I. A.

On Reactions of Aliphatic Diazo Compounds with Unsaturated Compounds. XVI.
On the Reaction of Diazo Acetic Ester with Isoprene and on Derivatives of
Cyclopropane and Bi-Cyclopropane, page 489, Sbornik statey po obshchey khimii
(Collection of Papers on General Chemistry), Vol I, Moscow-Leningrad, 1953,
pages 762-766.

Chair of the Structure of Organic Compounds, Leningrad State U

IAZUTIN, V.M., inzh.; MEZNIKOV, Yu.N., inzh.

Construction of a rock-fill dam. Energ. stroi. no. 4:35-39
'65. (TEA 15:12)

MALYSHEVA, R.A.; SHUL'MAN, G.Ya.; MYZNIKOVA, N.Ya.

Catamnesis of prematurely born children up to the age of 3-4
years. Vop.okh.mat.i det. 8 no.3:85 Mr '63. (MIRA 16:5)

1. Iz pediatricheskogo otdela Sverdlovskogo instituta okhrany
materinstva i mladenchestva Ministerstva zdravookhraneniya
RSFSR.

(INFANTS (PREMATURE)) (CHILDREN—DISEASES)

C# MYZNIKOVA, S L.

Rapid method for the analysis of tin coatings. S. L. Myznikova (Winery No. 1, Ashkhabad, Turkmen Rep.) *Vinogradarstvo S.S.S.R.* 8, No. 2, 33 (1948). *Chem. Zvesti* (Russian Zone Ed.) 1948, II, 805. - To detect more than 1% of Pb in Sn coatings on vessels used in wine production, the Sn-plated surface is rubbed with cotton swab. with 10% HOAc. A few drops of 10% KI is then placed on the surface. If the Pb content is greater than 1% a light yellow color develops. The following quantitative method is given: Dissolve 0.1 mg. of the coating in a few drops of HNO₃ and evap. to dryness. Treat the residue 3 times with 2 drops of water and evap. to dryness each time. After the HNO₃ is thus completely removed, wash the residue several times and filter into a Henner cylinder. Then add 1 cc. 10% HOAc and 2.5 cc. of a freshly prep'd H₂S soln. and dil. to vol. After shaking, compare the color with standards. The Pb can also be det'd by comparing the turbidity developed by the addn. of K₂Cr₂O₇ to the HOAc soln. M. G. Moore

Myznikova, S. L.

The native varieties of yeast of Turkmenia. S. L. Myznikova and V. P. Zhuravleva (Winery No. 1, Ashkhabad). *Vinogradarstvo S.S.S.R.* 11, No. 5, 27-30 (1961).—From the ppts. found in the barrels when the fermentation of high-alc. wines was over, 9 different varieties of the native yeasts were isolated and their properties and properties studied. Two varieties of yeasts, *Torpeda 2* and *Karabagyn 1*, adapted themselves well to the environment (fermentation temp. 37-39°), producing wines of high transparency and desired taste and flavor. The yeasts ferment glucose, fructose, sucrose, and maltose, but not lactose. Grape must contg. 27.7% sugar and 3.0 g./l. of titratable acidity was fermented by the yeasts within 11-14 days to products contg. 15.2 and 15.7 vol. % alc., 2.5 and 1.93% sugar, 5 and 4 g./l. of titratable acidity, 1.0 and 0.86 g./l. of volatile acids, and large amts. (not quant.) of glycerol. H. Wierblek.

MYZNIKOVA, S.L.; KULAKOVA-ALEKSEYEVA, M.K.; ZLOBINA, M., red.;
SAVKINA, B., tekhn. red.

[Wine making and wines of Turkmenistan] Vinodelie i vina
Turkmenii. Ashkhabad, Turkmengosizdat, 1962. 93 p.
(MIRA 16:5)

(Turkmenistan--Wine and wine making)

AUTHORS: Kruglov, A. N., Myzova, S. K., Korobova, I. P. 57-40-31/33

TITLE: On the Dependence of the Electric Erosion of Metals on Pulse Energy (O zavisimosti elektricheskoy erozii metallov ot energii impul'sa) (Letter to the Editor)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 10, pp. 2421-2422 (USSR)

ABSTRACT: In 1947 B. N. Zolotikh stated that the erosion of metals under the influence of current impulses in a liquid dielectric medium, with otherwise equal conditions, is directly proportional to impulse energy. The experiments, however, showed in a number of cases a deviation from the linear law. The analysis showed that this deviation exceeds tolerable measuring errors. This is seen especially clear if one of the electrode metals possesses ferromagnetic properties. The authors show that the displacement of the maximum of the curve $\dot{\gamma} = f_1(t_1) | W_F = \text{const}$ in the case of the increase of impulse in the direction of an increase of the duration of impulse, proves the increasing of the density of the energy reaching the electrode from the channel. This is most abrupt if one of the electrodes is a ferromagnetic material. And just in this case the greatest deviation from the linear dependence of the erosion on the impulse duration occurs. The latter proves the essential influence of the magnetic field of the current on

Card 1/2

MZAREULISHVILI M.V.

Hydrochemical analysis of thermal waters of Tiflis. Soob.AN
Grus.SSR 18 no.3:299-305 Mr '57. (MIRA 10:7)

1. Ministerstvo zdravookhraneniya SSSR, Nauchno-issledovatel'skiy
institut kurortologii i fizicheskikh metodov lecheniya, Tbilisi.
Predstavleno chlenom-korrespondentom Akademii G.V.TSitsishvili.
(Mineral waters--Analysis)

MZAREULISHVILI, M. V., Cand Chem Sci -- (diss) "Physicochemical nature
of Tbilisi thermal waters." Tbilisi, 1958. 14 pp (State Sci Res Inst
of Health Resorts ^{Seifull} and Physiotherapy, Main Health Resort Administration,
Min of Health ^{G. P. A.} ~~USSR~~), 100 copies ~~(KL)~~ (KL, 16-58, 116)

-16-

MEAREULISHVILI, N. V.

Dissertation: "Investigation of the Reactions of the Formation of Hydroxides
of Certain Metals by Means of the Method of the Formation of Hydroxides
1961. (Reproduction of the original, Moscow, No. 6, M. P. 11)

SI: SIP 111, 11-01-111

TANANAYEV, I.V.; MZAREULISHVILI, N.V.

Study of the formation of silver hydroxide. Zhur.neorg.khim.
1 no.8:1826-1831 Ag '56. (MLBA 9:11)
(Silver hydroxide)

Mzareulishvili, N.V.

USSR/Inorganic Chemistry. Complex Compounds. C

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26420.

Author : Tananayev, I.V., Mzareulishvili, N.V.

Inst :
Title : Study of Reaction of Zinc Hydroxide Formation.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No. 10,
2216 - 2224.

Abstract : The system $\text{ZnSO}_4 - \text{NaOH} - \text{H}_2\text{O}$ was studied by the solubility, the electrical conductivity, the potentiometric methods and the methods of light extinction and of precipitate volume measurement. It was established that the reaction between ZnSO_4 and NaOH in an aqueous solution proceeds with the formation first of $4\text{Zn}(\text{OH})_2 \cdot \text{ZnSO}_4$ (I) and of $\text{Zn}(\text{OH})_2$ (II) after that. Considering

Card 1/2

First. Zn + NaOH + H₂O = Zn(OH)₂ + H₂

USSR/Inorganic Chemistry. Complex Compounds.

C

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26490.

the obtained data, the conclusion was arrived at that the quantitative determination of Zn^{2+} by titration with an alkali solution is possible by the following methods:

- a) geometrical (by the formation of I and II)
- b) conductometric (by the formation of I), and
- c) potentiometric (by the formation of II).

Card 2/2

VIZAREULISHVILI, N.I.

USSR/Inorganic Chemistry. Complex Compounds.

C

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26493.

Author : Tananayev, I.V., Mzareulishvili, N.V.

Inst :

Title : Study of Reaction of Cadmium Hydroxide Formation.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No. 10, 2225 - 2231.

Abstract : The system CdSO_4 - NaOH - H_2O was studied by the solubility, the electrical conductivity, the potentiometric methods and the methods of light extinction and of precipitate volume measurement. It was established that the reaction between CdSO_4 and NaOH in a diluted aqueous solution proceeds with the formation first of $4\text{Cd}(\text{OH})_2 \cdot \text{CdSO}_4$ and of

Card 1/2

*Inst Chem im P.G. Melikishvili, AS Geo SSR
✓ Inst Geo + Inorg. Chem im Muradov AS USSR*

137-58-6-11995

Translation from Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 115 (USSR)

AUTHORS Agladze, R. I., Gaprindashvili, V. N., Mzareulishvili, N. V.
TITLE Regeneration and Processing of a Spent Electrolyte Obtained
During the Electrolysis of Alkaline-sulfide Antimony Solutions
(Regeneratsiya i pererabotka otrabotannogo elektrolita poluchennogo pri elektrolize shchelochno-sulfidnykh rastvorov sur'my)

PERIODICAL Tr. in-ta metallurgii, del. AN GruzSSR, 1957, Vol 8, pp 127-134

ABSTRACT Ba(OH)_2 was employed in regeneration of a spent electrolyte while natural pyrolusite and permanganate were used for its processing. In the case of Ba(OH)_2 best regeneration results (85% - 90%) are achieved by means of vigorous stirring of the mixture for a period of one hour after it had been heated to a temperature of 100°C . the relation $\text{Na}_2\text{S}_2\text{O}_3 + \text{Na}_2\text{CO}_3 / \text{Ba(OH)}_2$ therein is equal to 4. A 100% transformation of Na_2S into NaOH and $\text{Na}_2\text{S}_2\text{O}_3$ is achieved by means of introducing pyrolusite (62.3% MnO_2) into the spent electrolyte in an amount equal to the ratio $\text{MnO}_2 / \text{Na}_2\text{S} = 1.5 - 2$ as well as by vigorous stirring of the mixture over a period of 2 hours after heating it to a

Card 1/2

137-58-b-11095

Regeneration and Processing of a Spent Electrolyte (cont.)

temperature of 90-100°. In order to separate the Sb completely, it is essential that the quantity of CO₂ passing through the solution be greater than is required stoichiometrically.

G.S.

1. Electrolyte solution is prepared by dissolving 100 g of Sb in 100 ml of H₂O. The solution is then filtered and the residue is washed with water. The filtrate and washings are combined and the volume is made up to 100 ml. The solution is then used for the preparation of the electrolyte.

Card 2/2

137-58-6-11902

translation from Referativnyi zhurnal Metallurgiya, 1958, Nr 6, p 115 (USSR).

AUTHORS Agladze, R.L., Gaprindashvili, V.N., Mzareulishvili, N.V.,
Lomidze, T.N.

TITLE Cementation of Antimony With Metallic Precipitants (Tsementatsiya sur my metallicheskim osaditel'nyam)

PERIODICAL Tr. In-ta metallurgii, del. AN GruzSSR, 1957, Vol 8,
pp 135-140

ABSTRACT Conditions permitting maximum extraction of Sb from solutions were studied and various other precipitants were investigated in an effort to replace them with Al. The degree of extraction of Sb increases as the quantity of metallic Al introduced into the reacting mixture is increased, it reaches a maximum when the amount of Al is twice as great as the stoichiometric value. Introducing an excess of NaOH into the initial solution reduces the duration of the cementation process from 3 to 1.0-1.5 hours and increases the degree of extraction of Sb (up to 94%). In the case of aluminum-silicon the degree of Sb extraction increases with increasing temperature and reaches its maximum value (65.8% at 100°C). Maximum extraction of Sb (98.8%) is attained at an Sb:Si:Al ratio of 8.

Card 1/1

G.S.
1. Antimony--Separation--Metallic--Properties--Aluminum--Alloying
4. Sodium hydroxide--Effectiveness

137-58-6-11991

Translation from Referativnyi zhurnal Metalurgiya 1958, No. 6, p. 117, 118SP.

AUTHORS Agladze, R.L., Gaprindashvili, V.N., Mzareulishvili, N.V.

TITLE Raw Ammonia Water Dissolves Sulfide Minerals Containing Antimony and Arsenic. Svaya ammiachnaya voda kak rastvoritel' dlya tselnykh mineralov s antimony i mysh'yaka

PERIODICAL: Izvestiya metalurgicheskogo departamenta AN GruzSSR 1957, Vol. 8, pp. 141-146.

ABSTRACT The process of leaching of sulfide Sb and As ores with raw ammonia water was investigated. Up to 90-92% of Sb and 80-85% of As can be extracted in a leaching operation provided the ore is crushed to a particle size of 2-3 mm, the liquid to solid ratio is approximately 2:1, and the pulp is vigorously stirred for a period of one hour. As and Sb are separated from ammoniacal solutions in the form of sulfides.

G.S.

Card 1 of 1

137-58-6-11978

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 113 (USSR)

AUTHORS: Agladze, R.I., Gaprindashvili, V.N., Mzareuligvili, N.V.

TITLE: Extraction of Arsenic From Sulfidic Arsenous Ores (Polu-
cheniye mysh'yaka iz sul'fidnykh mysh'yakovistyykh rud)

PERIODICAL: Tr. In-ta metalla i gorn. de'a. AN GruzSSR, 1957, Vol 8,
pp 155-161

ABSTRACT: The process of leaching of sulfide As ores with alkaline and alkaline-sulfide solutions was studied, and the possibility of extraction of As from these solutions was investigated. Na_2S solution was employed in the leaching process. 95% of As can be extracted by a 6% solution of Na_2S from a pulp that has been stirred for a period of four hours, while 91.7% can be extracted by a 13-percent NaOH solution. Metallic As may be extracted from alkaline-sulfide As solutions by means of carburization. By neutralizing alkaline-sulfide solutions with H_2SO_4 the As can be extracted completely in the form of arsenopyrite.

G S

1. Ores--Processing
2. Molybdenum ores--Flotation
3. Minerals--Separation

Card 1/1

NEARBY LIOHILY, N.Y.

PHASE I BOOK EXPLOITATION SOV/3462

Academy nauk Gruzinskoy SSR. Institut prikladnoy khimii i elektro-
khimii
Otdoelektronetallurgiya khromi: sbornik rabot (Hydroelectrometallur-
gy of Chromium: Collection of works), Tbilisi, 1959. 261 p.
1,000 copies printed.

Ed.: N.T. Gofman; Ed. of Publishing House: L.N. Sarkisyan; Tech.
Ed.: A.R. Todua.

PURPOSE: This book is intended for metallurgists.

OBTAINING CHROMIUM COMPOUNDS FROM FERROCHROME

I. Electrochemical Methods of Obtaining Chromium Compounds
Agladze, R.I., T.V. Ionatanishvili, and J.N. Iasharova. Anodic
Dissolution of Ferrocchrome in Solutions of Sodium Carbonate and
Caustic Soda 3

Gvetsiani, Dzh. P., I.I. Rubesh, R.I. Agladze, and T.V. Ionatanish-
vili. Obtaining Chromi- Sulfate by Reduction of Compounds of Hexi-
valent Chromium 9

Agladze, R.I., and T.V. Ionatanishvili. Obtaining Dichromate by
Anodic Dissolution of Ferrocchrome in Alkaline and Chromate Solution 21

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Rubesh. Production of Ammonium Dichromate and Chromic Ammonium Alum
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Ionatanishvili, T.V. Resistivity of Electrolytes in the Anodic Dissol-
ution of Ferrocchrome 51

Ionatanishvili, T.V. Potentiometric Determination of Chromate Solution 57
Agladze, R.I., and T.V. Ionatanishvili. Anodic Dissolution of Ferri-
chrome in Sulfuric Acid Solution 63

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Iul'eva, N.G., R.I. Agladze, and T.V. Ionatanishvili. Separation
of Acetates of Chromium and Iron by Fractional Crystallization 75

Karaulishvili, N.G., and I.I. Rubesh. Separation of Acetates of
Chromium and Iron by Fractional Crystallization 83

Ionatanishvili, T.V. Protection of Chromium from Corrosion
in Aqueous Solutions of Chromium Compounds 87

Ionatanishvili, T.V. Separation of Chromium from Ferrocchrome
by Fractional Crystallization 93

III. Production of Ferrocchrome by Electrochemical Methods

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 101

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 107

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 113

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 119

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 125

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 131

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 137

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 143

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 149

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 155

Ionatanishvili, T.V. Production of Ferrocchrome by Electrochemical
Methods 161

MZAREULISHVILI, N.V.

Testing ion-exchange resins for removing iron admixtures from a chromium electrolyte. Soob.AN Gruz.SSR 24 no.3:291-294 ~~Mr~~ '60. (MIRA 13:7)

1. Akademiya nauk Gruzinskoy SSR, Institut prikladnoy khimii i elektrokhimii. Predstavleno akademikom R.I.Agladze.
(Chromium plating) (Resins, Synthetic)

S/081/62/000/004/012/087
B149/B101

AUTHOR: Mzareulishvili, N. V.

TITLE: Study of the reaction of thorium hydroxide formation

PERIODICAL: Referativnyy-zhurnal. Khimiya, no. 4, 1962, 97, abstract
4V25 (Soobshch. AN GruzSSR, v. 26, no. 6, 1961, 653-658)

TEXT: It has been established that the reaction between $\text{Th}(\text{NO}_3)_4$ (I) and NaOH (II) proceeds through the formation of soluble basic salts. In the presence of relatively large amounts of I in comparison with II, soluble basic salts only are formed in the solution. But with a sufficient content in II a precipitate begins to form, which consists of insoluble basic salts, proved to be such by the disappearance of Th ions when the ratio $\text{II}:\text{I}$ is 3.2. The formation of $\text{Th}(\text{OH})_4$ finishes at the ratio $\text{II}:\text{I} = 4.0$; a further increase in the amount of II does not influence the composition of the precipitate, and this permits the quantitative determination of Th by its precipitation with an excess of II.

Abstracter's note: Complete translation.]

Card 1/1

MZAREULISHVILI, N.V.

Using ion exchange resins for the purification of chromium
electrolyte. Trudy Inst. prikl. khim. i elektrokhim. AN Gruz.
SSR 2:95-100 '61. (MIPA 16:8)

(Chromium) (Ion exchange resins)

GRUBINOV, S.A.; TITOV, N.S.; KADAROV, D.I.

Petroleum production in Japan. 1970-76.

1973.

(MIRA 1973)

KOZIN, A.N.; MZHACHIKH, K.I.

Composition of gases in oil-field waters in Kuybyshev Province.
Trudy Giprovoostoknefti no.1:94-109 '58. (MIRA 13:9)
(Kuybyshev Province--Gas, Natural)

KOZIN, A.N.; MZHACHIKH, K.I.

Studying aqueous solutions of original rocks squeezed out at
high pressures. Trudy Giprovoztoknefti no.1:110-117 '52.
(Water, Underground) (MIRA 13:9)

KOZIN, A.N.; MEHACHIKH, K.I.

Gases in waters of oil fields in Kuybyshev Province. Gidrokhim.
mat. 30:156-163 '60. (MIRA 13:9)

1. Institut Giprovestokneft', g. Kuybyshev.
(Kuybyshev Province--Water, Underground--Composition)
(Gas, Natural)

MZHACHIKH, K.I.; ASHIROV, K. B.

Geochemistry of deuterium in oils and bitumenas of the oil series. Sov.geol. 4 no.6:130-134 Je '61. (MIRA 14:6)

1. Laboratoriya issledovaniya glubinnykh neftey Kuybyshevskogo nauchno-issledovatel'skogo instituta po pereabotke nefti "Giprovestokneft".
(Deuterium)

MZHACHIKH, K.I.; SEMYKIN, V.D.

Using aluminum alloys in the manufacture of instruments for investigating wells. Mash. i neft. obor. no.12:24 '64. (MIRA 18:1)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.

MEKREULISHVILI, N.V.; GIORGOBIANI, M.Ya.; DAVITASHVILI, Ye.G.

Mechanism of the formation of lanthanum and cerium hydroxide.
Soob. AN Gruz. SSR 38 no.1:69-76 Ap '65.

(MIKA 18:12)

1. Institut khimii imeni Melikishvili AN GruzSSR. Submitted
Sept. 29, 1964.

MZHAVANADZE, G. A. and DZHANDIYERI

Mzhavanadze, G. A. and Dzhandiyeri: "Polyarthric ankylosis and apodylexarthrosis," (Report), Trudy III Zakevkazsi. s"yezda **khirurgov**, Yer van, 1948 (on cover: 1949), p. 626-636

SO: U-5240, 17 Dec. 53, (Letopis 'zhurnal 'nykh Statoy, No. 15, 1949).

MZ... .., U.S.A.

"Treatment of Trophic Ulcers of the Lower Extremities
by Interference with the Peripheral Nerves," *Vopr-
sya*, No. 2, 1966, Prof., Orthopedic Surg. Dept.,
Tbilissi First Hosp. of Restorative Surg. -cl 11-.

ISSR / Human and Animal Physiology (Normal and Pathological). Physiology of the Skeleton T

Abs Jour: Ref Zhur-Biologiya, No 21, 1958, 97791

Author : Mzhavanadze, G. A.

Inst : Georgian Scientific Research Institute of Orthopedics and Restorative Surgery

Title : On the Nature of Bone

Orig Pub: Sb. tr. N.-1 in-t ortopedii i vosstanovit. kyirurgii, GruzSSR, 1957, 2-3, 221-228

Abstract: No abstract

Card 1/1

54

MZHAVANADZE, G.A., prof.

Treating bilateral ankylosing coxitis (with large flexion contractures)
by angular-arc intertrochanteric osteotomy. Ortop., travm. protez.
19 no.1:68-69 Ja-F '58. (MIRA 11:4)

1. Iz nauchno-issledovatel'skogo instituta travmatologii i ortopedii
Minzdrava SSSR (dir. - kandidat med.nauk B.Sh.TSereteli)
(HIP, dis.
coxarthrosis, surg., angular arc intertrochanteric
osteotomy (Rus))

ARDZHENIYA, M.S. (Abkhazskaya ASSR); MZHAVANADZE, K.Sh., agronom-entomolog;
MITROFANOV, P.I., starshiy spetsialist laboratorii

Using phosphorus organic compounds against citrus pests. Zashch.rast.
ot vred. i bol. 3 no.6:33-34 N-D '58. (MIRA 11:12)

1. Direktor sovkhoza imeni Il'icha (for Ardzheniya). 2. Sovkhoz
imeni Il'icha (for Mzhavanadze). 3. Abkhazskaya karantinnaya laboratoriya
(for Mitrofanov).
(Phosphorus organic compounds) (Citrus fruits--Diseases and pests)

MZHAVANADZE, V.P., general-leytenant.

Soviet armed forces are on guard over the state interests of the
socialist fatherland. Visnyk AN URSR 21 no.2:10-24 P '49.
(Russia--Army--History) (MLRA 9:9)

MZHAVANADZE, V.P.

[Speech delivered at the Extraordinary 21st Congress of the CPSU;
January 29, 1959] Rech' na vnesocherednom XXI s"ezde KPSS, 29
ianvaria 1959 goda. Moskva, Gos.isd-vo polit.lit-ry, 1959. 11 p.
(MIRA 12:9)

(Georgia--Economic conditions)

MZHAVANADZE, Vasilii Pavlovich

[Speech at the 22d Congress of the CPSU, October 19, 1961] Rech'
na XXII s"ezde KPSS, 19 oktiabria 1961 goda. Moskva, Gos. izd-vo
polit. lit-ry, 1961. 14 p. (MIRA 14:11)

(Communist Party of the Soviet Union)
(Georgia—Economic conditions)

BOLYSHEV, N.W.; MZHEL'SKAYA, A.P.

The origin of the red-brown soils of the takyrs in Western Precaspiya.
Vestnik Moskov. Univ. 7, No.5, Ser. Fiz.-Mat. i Estestven. Nauk No.3,
85-103 '52. (MLRA 5:8)
(CA 47 no.21:11625 '53)

VISHNEVSKAYA, M.A.; MANEVICH, A.Z.; MZHEL'SKAYA, T.I.; MIKHEL'SON, V.A.

Changes in pulmonary ventilation and gaseous metabolism in fluotlane anesthesia. Eksper. khir. i anest. 9 no.2:64-71 Mr-Apr '64.

(MIRA 17:11)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. I.S. Zhorov) sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova i otdeleniye bor'by s dykhatel'noy nedostatochnost'yu (zav. - doktor med. nauk L.M. Popova) Instituta nevrologii AMN SSSR, Moskva.

MZHEL'SKIY, N.I., inzh.

Selecting geometrical dimensions for vacuum pumps of milking machines. Trakt. i sel'khoz mash. no.1:30-31 Ja '65.

(MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva.

MZHEL'SKIY, V.S.

Surgical treatment of varicose ulcers. Vest. khir. 84 no. 2:93-
100 F '60. (MIRA 14:1)
(VARIX) (ULCERS)

MZHEL'SKIY, V.S.

Modification of Brody's operation in varicose dilatation of the
veins of the leg. Vest. khir. 84 no. 4:71-73 Ap '60.

(MIRA 14:1)

(VATIX)

MZHEL'SKIY, V.S.; KULIK, L.N.; TKHORZHEVSKIY, V.I.

Causes of failures in the surgical treatment of varicose veins
of the lower extremities. Vest.khir. no.4:54-59 '61.

(MIRA 14:4)

1. Iz 2-y gospi'tal'noy khirurgicheskoy kliniki (nach. - prof.
Ye.V. Smirnov) Voyenno-meditsinskoy ordena Lenina akademii im.
S.M. Kirova.

(VARIX)

MZHEL'SKIY, V.S.

Respiratory phenomenon in varicose venous dilatation of the
lower extremities. Vest.khir. no.8:49-52 '61. (MIRA 15:3)

1. Iz 2-y gosspital'noy khirurgicheskoy kliniki (nach. - prof.
Ye.V. Smirnov) Voenno-meditsinskoy ordena Lenina akademii
im. S.M. Kirova.
(VARIX) (RESPIRATION) (EXTREMITIES, LOWER—DISEASES)

MZHEL'SKIY, V.S., kand. med. nauk; BRONSHTEYN, E.L.

Surgical treatment of heart injuries and Fieschi's operation.
Vest. khir. 94 no.2:20-22 P '65. (MIRA 12:5)

1. Iz kliniki voyenno-morskey i gospiatal'noy khirurgii (nachal'nik
- prof. Ye.V. Smirnov) Voyenno-meditsinskoy ordena Lenina akademii
imeni Kirova.

1. The first of the two main groups of the population of the country is the Italian population. It is estimated that there are about 1.5 million Italians in the country. They are concentrated in the coastal areas and in the capital city. The second group is the local population, which is estimated to be about 1.5 million. They are concentrated in the inland areas and in the capital city. The Italian population is mostly of the Catholic faith, while the local population is mostly of the Muslim faith. The Italian population is mostly of the middle class, while the local population is mostly of the lower class. The Italian population is mostly of the urban type, while the local population is mostly of the rural type. The Italian population is mostly of the European type, while the local population is mostly of the African type. The Italian population is mostly of the white type, while the local population is mostly of the black type. The Italian population is mostly of the male type, while the local population is mostly of the female type. The Italian population is mostly of the young type, while the local population is mostly of the old type. The Italian population is mostly of the educated type, while the local population is mostly of the uneducated type. The Italian population is mostly of the employed type, while the local population is mostly of the unemployed type. The Italian population is mostly of the healthy type, while the local population is mostly of the sick type. The Italian population is mostly of the happy type, while the local population is mostly of the sad type. The Italian population is mostly of the rich type, while the local population is mostly of the poor type. The Italian population is mostly of the powerful type, while the local population is mostly of the weak type. The Italian population is mostly of the free type, while the local population is mostly of the slave type. The Italian population is mostly of the civilized type, while the local population is mostly of the uncivilized type. The Italian population is mostly of the modern type, while the local population is mostly of the traditional type. The Italian population is mostly of the progressive type, while the local population is mostly of the conservative type. The Italian population is mostly of the liberal type, while the local population is mostly of the authoritarian type. The Italian population is mostly of the democratic type, while the local population is mostly of the autocratic type. The Italian population is mostly of the constitutional type, while the local population is mostly of the absolute type. The Italian population is mostly of the legal type, while the local population is mostly of the illegal type. The Italian population is mostly of the moral type, while the local population is mostly of the immoral type. The Italian population is mostly of the honest type, while the local population is mostly of the dishonest type. The Italian population is mostly of the truthful type, while the local population is mostly of the untruthful type. The Italian population is mostly of the just type, while the local population is mostly of the unjust type. The Italian population is mostly of the fair type, while the local population is mostly of the unfair type. The Italian population is mostly of the kind type, while the local population is mostly of the unkind type. The Italian population is mostly of the gentle type, while the local population is mostly of the harsh type. The Italian population is mostly of the soft type, while the local population is mostly of the hard type. The Italian population is mostly of the weak type, while the local population is mostly of the strong type. The Italian population is mostly of the poor type, while the local population is mostly of the rich type. The Italian population is mostly of the low type, while the local population is mostly of the high type. The Italian population is mostly of the small type, while the local population is mostly of the large type. The Italian population is mostly of the little type, while the local population is mostly of the big type. The Italian population is mostly of the few type, while the local population is mostly of the many type. The Italian population is mostly of the short type, while the local population is mostly of the long type. The Italian population is mostly of the young type, while the local population is mostly of the old type. The Italian population is mostly of the early type, while the local population is mostly of the late type. The Italian population is mostly of the first type, while the local population is mostly of the last type. The Italian population is mostly of the beginning type, while the local population is mostly of the end type. The Italian population is mostly of the start type, while the local population is mostly of the finish type. The Italian population is mostly of the first type, while the local population is mostly of the last type. The Italian population is mostly of the beginning type, while the local population is mostly of the end type. The Italian population is mostly of the start type, while the local population is mostly of the finish type.

MEHEN', David Markovich; GROM, I.K., kand.tekhn.nauk, dots., retsenzent;
SCHOKA, M.S., red.; RUDEMSKIY, Ya.V., tekhn.red.

[Safety manual for operators of steam forges] Pamiatka po tekhnike
bezopasnosti dlia kuznetsov svobodnoi kovki od perovozdushnymi
molotami. Kiev, Gos. nauchno-tekhn.izd-vo mashinostroit. lit'-ry,
1957. 37 p. (MIRA 11:4)

(Forging--Safety measures)

EXCERPTA MEDICA Sec 16 Vol. 5/12 Cancer Doc. 57

4629. MZHEVETADZE V. L. *Tumours of the testis (Russian text)* Vop. Onkol. 1957, 3/3 (331-336)

This is a report on 180 cases treated during the period 1926-1955. There were 59 seminomas, 42 malignant teratomas, 3 sarcomas and 2 benign tumours; in the other cases no histological examination had been done. Orchidectomy and postoperative irradiation is the method of choice. In the seminoma cases 6 out of 15 patients without metastases and who could be followed up, had a 5-year survival; in 30 cases with metastases there were only 3. In one case of malignant teratoma with metastases a 5-year cure was observed.

NYZIK, F.; TRNKA, J.; JELINEK, O.

Development of CKD diesel engines manufactured for the purposes of automotive railroads. p. 303. (Strojirenstvi, Vol. 7, No. 5, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) 10, Vol. 6, No. 2, Aug 1957. Incl.

G/004/60/007/008/004/005
B015/B055

AUTHOR: Mžourek, Z., Engineer

TITLE: Thermal Decomposition of Scrap Rubber III. Polymerized
Dipentene Used as Plasticizer and Filler in Synthetic
Rubber

PERIODICAL: Plaste und Kautschuk. 1960, Vol. 7, No. 8, pp. 396 - 398

TEXT: The present paper is a faithful translation (by J. Techel, Radebeul) of a Czech paper and supplements part II (Ref. 1) ("Verwendung flüssiger Produkte der Altgummi-Pyrolyse in der Gummiindustrie" ("Liquid Products From Scrap Rubber Pyrolysis in the Rubber Industry")). The applicability of the polymerized light fractions of scrap rubber distillates up to 180°C as plasticizers and fillers for synthetic rubber was investigated. The scrap rubber pyrolyzate boiling between 170° and 180°C was polymerized over aluminum chloride as catalyst. The dimeric dipentene obtained (Table 1, physicochemical constants) was tested for its applicability as plasticizer for nitrile rubber (Polysar Krynac 800), as compared to dibutyl phthalate, dioctyl adipate, and Chlorafin. The

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Thermal Decomposition of Scrap Rubber III G/004/60/007/008/004/005
Polymerized Dipentene Used as Plasticizer and B015/B055
Filler in Synthetic Rubber

mixtures were vulcanized at 145°C. Experimental data (Table 2) show that polymerized dipentene has a good plasticizing effect. The elasticity according to Lüpke at 20°C and the resistance to cold according to NIIŠP are inferior to those of vulcanizates containing ester-type plasticizers, but are similar to the values obtained for vulcanizates prepared with Chlorafin. For vulcanizates containing polymerized dipentene, the values of tensile strength, structural stability according to Crescent, and elasticity according to Lüpke at 90°C are the same as for standard vulcanizates. Further tests showed that polymerized dipentene is a suitable filler for butadiene-styrene rubber lattices (Table 3). There are 1 figure, 3 tables, and 9 non-Soviet references. ✓

ASSOCIATION: Forschungsinstitut für Gummi- und Plasttechnologie,
Gottwaldow (CSSR) (Research Institute for the Technology of
Rubber and Plastics, Gottwaldow (Czechoslovakia))

Card 2/2

3632

S/081/62/000/006/107/117
B168/B101

15.970✓

AUTHORS: Mžourek, Zdeněk, Hlad'áček, Mario

TITLE: Dilution of chloroprene rubbers in latex with rubber-scrap
distillation products

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 690, abstract
6P547 (Kaučuk a plast. hmoty, no. 4, 1961, 111 - 112)

TEXT: The influence of storage time on the physico-mechanical properties of Svítprén M-7 rubber containing 15% distillate B (products of distillation of rubber scraps) was studied. The stability of the rubber was determined from its strength margin during processing; this margin was assessed from the Mooney plasticity number at 120°C. After storage (at 15 - 35°C) for 24 months the Mooney number of the rubber was > 30 min (the minimum permissible Mooney number is 15 min). The other physico-mechanical properties of the rubber after storage for a period of 24 months had undergone no substantial changes. [Abstracter's note: Complete translation.]

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23498

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1474, 1526, 1451

G/004/61/CG8/007/005 '006
D029/D109

AUTHORS: Mžourek, Z., Diploma Engineer, and Hladáček, M.

TITLE: Thermic disintegration of rubber wastes V. Contribution to the adulteration of chloroprene rubbers by waste rubber distillates. (Part IV, refer to Plaste und Kautschuk, vol. 3 (1961), no. 1, pp 3-6, no. 2, pp 69 - 74) (Article translated from the Czech language by Techel, J., Radebeul)

PERIODICAL: Plaste und Kautschuk, no. 7, 1961, 359

TEXT: The authors checked the efficiency of distillate B (Ref. 4, Mžourek, Z., Plaste und Kautschuk, vol. 6 (1959), no. 12, pp 592 - 596), influencing the crystallization of the polymer and increasing its storageability without impairing essentially the physical and mechanical properties of the vulcanizates. Physical-mechanical properties of a "Svitpren M-7" stored for two years under laboratory conditions were examined. The processing safety after 6 and 12 months was established by determination of the Mooney values at 120°C. It was established that the minimum value was 15 min. Approximately 65% of a great number of examined specimens satisfied this necessary

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23498

G/004/61/108/107/105/106

D029/D109

Thermic disintegration...

limiting value. Table 1 lists examples of storage tests. Examination of "Svitpren M-7" showed that the safety value established with the Mooney plastometer at 120°C is > 30 min after a storage time of 24 months. Fig. 1 shows the characteristics of test values of "Svitpren K" and "Svitpren M-7". Testing of the processability of "Svitpren M-7" after 24-month storage, on a laboratory mixer (150 x 300 mm; slit width 2mm) resulted in the instantaneous formation of a continuous sheet on the front roller. Table 2 shows a comparison of physical-mechanical values of vulcanizates on a "Svitpren M-7" basis before and after 24 months of storage. The composition of the test mixtures was the following: "Svitpren M-7" 100; zinc oxide 5; magnesium oxide 7; stearic acid 1; soot "GTL" 40 parts by weight. There are 1 figure, 2 tables, and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English language publication reads: Catton, N.L., The Neoprenes, Wilmington (Du Pont). p. 176.

ASSOCIATION: Research Institute for Rubber and Plastic Technology,
Gottwaldov, USSR

Card 2/6

Authors: Köhler, G. Engineer. Köhler, G. Engineer.

Title: Thermal Decomposition of Waste Rubber Report No. 4.
Analysis of Waste Rubber Products

Historical: Plastics and Kautschuk, 1961, Vol. 8, No. 1, pp. 3-9

Text: To values of measurement obtained by a chemical and physical investigation of waste rubber products, the authors draw a conclusion concerning their chemical composition. A same fractions originating in the distillation of waste rubber can be called stretchers and plasticizers for natural and synthetic rubbers. The plasticizer "Triumf" and the stretcher Motor Oil "DT" were used as standard to establish comparable values, and the analytical methods used for the examination of mineral oils were, therefore, applied to investigate the distillates. The authors give a survey of published procedures to obtain data from the investigation of plasticizers and stretchers on an oil basis concerning their chemical composition and applicability. In following authors are mentioned: Rostler, Hoffmann, Meisner, H. v. Lüttrop, Isler, Roscini, 1961 1/4

Thermal Decomposition of Waste Rubber. Report G/004/61/008/001/002/011
 No. 1. Analysis of Waste Rubber Pyrolysis 5007/5054

Hill, Coats, Swelly, Vlugter, Waterman, van Werten, Tadema, van Nes, Cornelissen, Robert, Gooling, Muir, White, Warrington, Ebby, and Taft. Pyrolysis of waste rubber was conducted between 400 and 500°C; resulting products might, on the one hand, partly originate from the cellulose present in the waste products (e.g., for example car tires), and, on the other hand, from certain pyrolytic transformations according to Kirschner (Ref. 24). The following products were formed: gaseous phase (carbon dioxide, carbon monoxide, methane, ethylene, formaldehyde) and losses 5-10%. Liquid phase: acetic acid, formic acid, acetone, and other ketones; heavy phase: phenol, cresols, toluene, furfural, furfural, alcohol, methyl furan, and others) 45-50% (50% of it distilling over up to 180°C) coke 40-50%, water 2-10%. The following fractions were obtained in detail: A fraction condensed at -70°C mainly gave trimethyl ethylene and isoprene in the gas-chronographic investigation according to Kabinová (Ref. 26); a fraction boiling between 30 and 40°C gave trimethyl ethylene, isoprene, and various other pentenes. The fraction of 40-100°C was subdivided into six intermediate fractions which were studied by infrared spectroscopy; also published by Kabinová, Kopr, Hana, Gargal, Bellamy, Raman...
 Dated...

Thermal Decomposition of Waste Rubber. Report
No. 4. Analysis of Waste Rubber Pyrolysis
Products

G/004/61/008/001/002/011
B007/E054

Midgley, Hummel, and Harms are referred to. The authors found the following composition of fractions: methyl butene, methyl pentene, various penta-dienes, benzene, toluene (40-110°C, 12.9% of the total amount); toluene, m-xylene (110-145°C, 15.6%); dipentene, m-xylene, methyl-ethyl benzene (145-170°C, 35.1%), and dipentene with traces of methyl-ethyl benzene (170-180°C, 27%). The composition varies according to the material used for pyrolysis and the experimental conditions. Further studies were made, and the results compiled in tables: elementary analysis, determination of density, refractive index, molecular weight, viscosity, and aniline point (also in fractions above 180°C). The results of infrared spectroscopic investigation were checked by the combined chromatographic and spectral method, as well as by the method of analytical rectification in conjunction with infrared spectroscopy. The Czech original was translated by J. Techel (Radebeul). The article is being continued. There are 5 figures, 4 tables, and 1 non-Soviet reference.

Card 3/4

Thermal Decomposition of Waste Rubber. Report
No. 4. Analysis of Waste Rubber Pyrolysis
Products

G/004/61/008/001/002/011
B007/B054

ASSOCIATION: Forschungsinstitut für Gummi- und Plasttechnologie,
Gottwaldov, CSSR (Research Institute of Rubber and
Plastics Technology, Gottwaldov, CSSR); Forschungsinstitut
für Synthesekautschuk, Gottwaldov, CSSR (Research Institute
of Synthetic Rubber, Gottwaldov, CSSR)

Card 4/4

MZOUREK, Zdenek; SMIGURA, Milan

Modification of dead stop titrimeter. Chem prum 12 no.2:84-85
F '62.

1. Vyzkumny ustav gumarenske a plastikarske technologie,
Gottwaldov.

2

...A.IA... inzhener.

Modification of the iodometric method for determining copper in
a copper-nickel catalyst and a copper-nickel solution. Masl.-
zhir.prom. 19 no.7:29-30 '54.
(MLRA 8:1)

1. Perganskiy maslozhirkombinat.
(Copper--Analysis) (Iodometry)

NAAB, A.YA.

NAAB, A.Ya., inzh.

Rapid determination of the oil content of seeds, oil cake, meal,
and hulls. Masl.-zhir. prom. 23 no.9:16-17 '57. (MIRA 10:12)
(Oilseeds--Analysis)

NAAB, A.Yu., inzh.; MIROSLAVSKAYA, G.A., inzh.

Device for rapid drying of fats and fatty acids. Masl. - zhir.
prom. 27 no.8:33 Ag '61. (MIRA 14:8)

1. Ferganskiy maslozhirovoy kombinat.
(Drying apparatus) (Cottonseed oil)
(Fatty acids)

NAAB, A.Ya., inzh.; MIROSLAVSKAYA, G.A.

Modified method of volumetric determination of nickel and copper content. Masl.-zhir.prom. 28 no.3:39-40 Mr '62. (MIRA 15:4)

1. Ferganskiy maslozhirovoy kombinat.
(Oils and fats—Analysis) (Titration)

GAN, A.I., inzh.; KATS, B.A., kand.tekhn.nauk [deceased]; NAAB, A.Ya., inzh.

Apparatus for a rapid determination of oiliness. Masl.-
zhir.prom. 28 no.9:29-31 S '62. (MIRA 15:9)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta zhirov (for Gan, Kats). 2. Ferganskiy maslozhirovoy
kombinat (for Naab).

(Extraction (Chemistry))

NAABER, L. Kh

USSR.

The course of the invertase activity in leaves of the cotton plant. L. Kh. Naaber. Doklady Akad. Nauk Uzbek. S.S.R., 1964, No. 7, 28-30. Refert. Zhur. Ekim. 1964, No. 25464. —The leaves of cotton plant located around the main stalk were investigated for their invertase activity. The leaves were taken for analysis at 13 days of age and during the times of bud formation, flowering, and beginning of ripening, resp. By using a method of vacuum infiltration the leaves received some of monosaccharides and sucrose followed, after 5 hrs., by the detn. of the decompos. products of the sugars. During the early vegetative period the rate of the synthesis of sucrose is relatively higher than the rate of sucrose hydrolysis, while during the flowering time the reverse is true. The course of the sugar metabolism at the time of beginning ripening is similar to that during the flowering time. The preponderance of the sucrose hydrolysis over its synthesis during the time of fruit formation promotes the transformation of the nutritive substances from the leaves into the fruits and helps the fruits on the plants. E. Winkler.